

**Environmental Impact Questions & Title VI Stratospheric
Ozone Questions**
Appendix H

Project No. 0014592-00B
Resolution Performance Products LLC
Norco, Louisiana

Environmental Resources Management
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*Response to IT Decision Environmental Impact Questionnaire
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Norco Facility
Norco, Louisiana*

EXECUTIVE SUMMARY

Resolution Performance Products LLC (RPP) is a newly formed company that has purchased existing assets previously owned and operated by Shell Chemical Company (Shell) in Norco, St. Charles Parish, Louisiana. The assets acquired by RPP are part of what has historically been known as the Norco Chemical Plant - West Site. The assets purchased by RPP include the Crude Epichlorohydrin Unit (C-Unit), elevated flare, two organic chloride incinerators, High Performance Resins Unit (HPRU), and Calcium Chloride (CaCl_2) Unit. A change in ownership notification was made to the Louisiana Department of Environmental Quality (LDEQ) on January 30, 2001. Approval of these changes was granted on August 15, 2001, and RPP subsequently requested administrative corrections to the change in ownership document that was issued.

Prior to purchase by RPP, the Norco Facility had been in operation for over 45 years and has undergone several permitting activities since then. In October 1996, Shell submitted three separate Part 70 Permit Applications for the Norco Chemical Complex - West Site, including one for the two incinerators, one for the HPRU, and one for all other operating units (i.e., C-Unit, CaCl_2 Unit, M-Unit, Shipping Area, Utilities Area, and flare). Part 70 Permits were issued for the incinerators and the HPRU based on those applications; however, the applications for the remaining units have not yet undergone or will not undergo technical review by LDEQ. RPP submitted a Part 70 permit application to LDEQ for the RPP Flare on April 12, 2002 and LDEQ issued Part 70 Permit 2764-V0 to RPP for the flare. RPP submitted a Part 70 permit application to LDEQ in August 2003 for the C-Unit and CaCl_2 Unit and LDEQ issued Part 70 Permit 2869-V0 in March 2004 for these units. RPP currently operates the HPRU under Part 70 Permit Number 2586-V0 and Part 70 Permit Number 2252-V0 for the incinerators. As the new owner of the facility, RPP is requesting updated permits for portions of the facility.

This application is submitted to renew the Part 70 Permit for the Incinerators. This equipment is presently operated under transferred Part 70 Permit Number 2252-V0. As part of this permit renewal, RPP has updated calculation methodology and used more current emission factors where applicable.

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The following can be concluded about the RPP Norco Facility:

- RPP has avoided the potential and real adverse environmental effects of operating the Incinerators, at the existing location in Norco, St. Charles Parish, Louisiana, to the maximum extent possible.
- A cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of RPP operating the Incinerators at the existing location in Norco, St. Charles Parish, Louisiana, demonstrates that the latter outweighs the former.
- There are no alternative projects that would offer more protection to the environment without unduly curtailing non-environmental benefits than RPP operating the Incinerators at the existing location in Norco, St. Charles Parish, Louisiana.
- There are no alternative sites that would offer more protection to the environment without unduly curtailing non-environmental benefits than the existing site of the RPP Norco Facility.
- There are no mitigating measures that would offer more environmental protection without unduly curtailing non-environmental benefits than RPP operating the Incinerators at the existing location in Norco, St. Charles Parish, Louisiana.

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I. Have the potential and real adverse environmental effects of RPP operating the existing Incinerators at the existing RPP Norco Facility been avoided to the maximum extent possible?

Yes, the potential and real adverse environmental effects related to operating the Incinerators at the existing location in Norco, St. Charles Parish, Louisiana have been avoided to the maximum extent possible.

The Resolution Performance Products LLC (RPP) Norco Facility is located in an industrial zone in Norco, St. Charles Parish, Louisiana. The facility has been in operation at its present location for over 45 years. A change in ownership notification to the Louisiana Department of Environmental Quality (LDEQ) for each of the respective units was submitted on January 30, 2001 and was approved on August 15, 2001. RPP subsequently requested administrative clarifications to the approved change in ownership document.

As the new owner of the existing facility, RPP is requesting updated permits for existing operating units, including this renewal permit for the Incinerators. All applicable parish, state, and federal environmental regulations were reviewed, appropriately applied, and will be adhered to during operation of the facility, as well as the use of good engineering and management practices. RPP will follow these criteria throughout its ownership and operation of this facility. Additionally, the potential environmental impacts from the RPP Norco Facility to the land, water, and air are minimized through the use of good environmental practices.

Air emissions from the Incinerators include particulate matter (PM), sulfur dioxide (SO₂), carbon monoxide (CO), nitrogen oxides (NO_x), volatile organic compounds (VOC's), certain compounds classified as hazardous/toxic air pollutants (HAP/TAP's), and metals. The specific emissions and quantities of these emissions are provided in Appendix B of the permit application.

Most of the vent streams from sources in RPP's C-Unit and HPRU are routed to the organic chloride incinerators for emission control. The Incinerators meet the applicable maximum achievable control technology (MACT) as determined by the EPA. This application also includes emissions from the Incinerator emergency vent scrubber (Source ID 198). Fugitive emissions (Source ID 196) from such non-point sources as flanges and valves are controlled through good operating and housekeeping practices, including incorporation of a rigorous and routine monitoring and repair program for such components to minimize emissions from these sources. Also, emissions from wastewater fugitives are included in this application (Source ID 197).

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Additionally, RPP takes further safety measures at the facility to avoid potential and real adverse environmental impacts to the maximum extent possible. Safety equipment at the RPP Norco Facility includes pressure relief safety valves to protect equipment from overpressure, speed trips on steam turbines, Protective Instrument Systems that are designed to have the highest level of reliability (including dual independent sensing elements and entirely hard-wired shutdown systems), and numerous operational alarms to alert operators if conditions approach out of range.

RPP employs dedicated pressure equipment inspectors that are certified by the American Petroleum Institute (API) and use API codes and standards as a means to inspect and monitor pressure equipment. The Protective Instrument Systems have set inspection intervals and mitigation plans that coach personnel to consistently handle potential instrumentation failure. Additionally, craftsmen that work on Protective Instrument Systems receive specialized training prior to servicing or checking the instrumentation.

Wastes generated at the RPP Norco Facility are minimized. RPP maintains a program to reduce the volume and toxicity of all hazardous wastes that are generated by the facility's operation to the degree determined to be economically practicable. RPP's process wastewater and sanitary waste are treated off-site in Shell's Wastewater Treatment System (WWTS). The performance of the WWTS is monitored and results are submitted by Shell to the LDEQ. RPP treats its liquid hazardous waste in the existing organic chloride incinerators, which are presently operated under Part 70 and RCRA permits.

Additionally, storm water discharges are not expected to impact the surrounding area. Discharges of storm water from the process area are regulated through a storm water permit issued to Shell by the LDEQ. Prior to discharge, the storm water will meet the state and federal guidelines applicable to the facility.

There is no known significant potential for impacting ground water, since the potential for accidental spills is minimized through best management practices and adherence to the facility's Spill Prevention, Control and Countermeasures Plan. The existing facility is designed to minimize potential impact to sub-surface soils and ground water. Process and storage tanks are located either in diked areas or areas designed so that potential spillage from the tanks would route to Shell's WWTS. All hazardous waste tanks are located on concrete pads surrounded by concrete containment walls and meet strict regulatory standards. Additionally, the process areas have dedicated process sewers to collect and transport process wastewater and storm water to the Shell WWTS.

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II. Does a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of RPP operating the existing RPP Norco Facility demonstrate that the latter outweighs the former?

Yes, a cost benefit analysis of the environmental impact costs balanced against the social and economic benefits of RPP operating the Incinerators at the existing location in Norco, St. Charles Parish, Louisiana, demonstrates that the latter outweighs the former.

The social and economic benefits of the existing RPP Norco Facility greatly outweigh its environmental impacts. Since operation of the Incinerators is an integral part of the facility's operation, the social and economic benefits of operating the existing facility would be the same social and economic benefits of operating these units.

RPP's operation of the existing facility will continue to support the employment and personal income of the residents of St. Charles Parish and Louisiana, as well as support the tax base for the Parish, the surrounding parishes, and the state.

The RPP Norco Facility is an existing facility previously owned by Shell. As the prior owner, Shell contributed to the local and state economies. As the new owner of the facility, RPP will continue to contribute to the local economy by paying over \$1 million in property and sales taxes to St. Charles Parish and the state of Louisiana each year.

Furthermore, the existing RPP workforce and contractors associated with the facility's processes will be maintained, which will continue to support the economy of Norco, St. Charles Parish, and Louisiana. Under operation by RPP, the facility plans to maintain an approximate \$12 million annual workforce. Economic studies have shown that business dollars tend to proliferate through the economy as a direct result of local spending. The RPP staff is local. RPP uses a local agency to accept applications for hourly positions. Salaried positions are published with the local state employment agency, area newspapers, and select Internet sites. Local employment agencies typically forward local applicants to RPP for positions. Additionally, RPP utilizes contractor assistance from local and/or Louisiana companies.

Public costs for police protection, fire protection, medical facilities, schools and roads are not anticipated to increase from RPP's operation of the existing facility.

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RPP contracts its own fire, emergency, and security protection and wastewater treatment for the site and, as such, would not drain or diminish the services provided by the local governments or municipalities. RPP uses local volunteer fire departments and the local Sheriff's Department only as backup support if necessary. Since RPP maintained a large portion of the existing facility workforce and plans to hire locally to the extent possible, the impact on new enrollment at the local schools is minimal. Additionally, the operations of the facility have historically had little adverse effect on public costs for police protection, fire protection, medical facilities, schools and roads and these public costs are not anticipated to increase from RPP ownership of the existing facility.

In an effort to increase the already high level of safety awareness, RPP uses safety training programs for employees. RPP offers employees monthly safety meetings in accordance with OSHA requirements. In addition, RPP provides employees with computer based training modules managed through a software program that maintains a history of all training completed. Safety meetings and computer based training is required for employees as appropriate to their job functions. Additionally, facility operators and certain support staff members attend an annual hands-on training session for emergency response.

The life of the facility has not been fixed, but will be indefinite, depending on many factors, including the economics of the products and market conditions. However, because of the financial standing and general interests of the stakeholders involved in this facility, there are adequate assurances that this site will be properly closed in accordance with all federal, state, and local requirements in place at the time that such a determination would be made. This would include any required post-closure monitoring, upkeep, and maintenance requirements to assure that health, environment, and safety concerns are considered and addressed properly.

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III. Are there alternative projects that would offer more protection to the environment than RPP operating the existing RPP Norco Facility without unduly curtailing nonenvironmental benefits?

There are no physical modifications requested in this application. However, Under RPP ownership, the facility will continue to conduct clean, safe, and efficient operations. RPP maintains a program to reduce the volume and toxicity of all hazardous wastes that are generated by the facility's operation to the degree determined to be economically practicable. RPP's process wastewater and sanitary waste are treated off-site in Shell's Wastewater Treatment System (WWTS). The performance of the WWTS is monitored daily and results are submitted monthly by Shell to the LDEQ. RPP's liquid hazardous waste is treated in the existing organic chloride incinerators, which are presently permitted by LDEQ, as previously discussed.

All applicable state and federal environmental regulations were reviewed, appropriately applied, and are adhered to during operation of the facility, as well as the use of good engineering and management practices. As previously stated in response to Question I, RPP will follow these criteria throughout its ownership and operation of this facility.

The existing facility is designed to minimize potential impact to sub-surface soils and ground water. Process storage tanks are located either in diked areas or areas designed so that potential spillage would route to the wastewater treatment system. All hazardous waste tanks are located on concrete pads surrounded by concrete containment walls. Additionally, the process areas have chemical sewers to collect potential chemical leaks and small spills that could potentially occur.

As an existing facility currently in operation, RPP has demonstrated that responsible operation has led to adequate protection of the environment.

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IV. Are there alternative sites that would offer more protection to the environment than the existing RPP Norco Facility site without unduly curtailing nonenvironmental benefits?

No, there are no alternative sites that would offer more protection to the environment without unduly curtailing non-environmental benefits than the existing site of the RPP Norco Facility.

Prior to ownership by RPP, the facility had been operating at its present location for over 45 years. The RPP Norco Facility, including the Incinerators, is located in an area that is classified for industrial use in St. Charles Parish. RPP is a valuable member of this industrial community and maintains clean, efficient, and safe operations. RPP also maintains several procedures for spill prevention, waste handling, and emergency response activities.

The location of the facility near the Mississippi River and near major rail and truck routes is essential for successful operations since RPP's products and raw materials are transported by barge, railcar, and truck. The location is also advantageous since at its present location, the RPP Norco facility is in close proximity to a group of petrochemical plants that purchase, use, and sell related chemical products.

The Incinerators consist of existing equipment located at the existing RPP Norco Facility. In addition, this equipment is currently permitted to operate at the RPP Norco Facility under Part 70 and RCRA permits.

The process area at the RPP Norco Facility is designed to minimize any potential impact to the environment. Specifically, safety equipment includes pressure safety valves to protect equipment from overpressure, speed trips on steam turbines, Protective Instrument Systems that are designed to have the highest level of reliability including dual independent sensing elements and entirely hard-wired shutdown systems, and numerous operational alarms to alert operators of potential out of range conditions that may occur.

Process bulk storage tanks are located either in diked areas or areas designed so that potential spills from the tank route to the wastewater treatment system. All hazardous waste tanks are located on concrete pads surrounded by concrete containment walls. The process areas have sewers to collect potential chemical leaks and small spills that could potentially occur.

Through this permit application, RPP is requesting renewal of its Part 70 Permit for the Norco Facility's Incinerators. Since the equipment for which RPP would like to receive a Part 70 Renewal Permit is currently permitted and operating at the

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existing RPP Norco Facility site, the existing site would offer more protection to the environment than alternative sites without unduly curtailing non-environmental benefits.

V. Are there mitigating measures that would offer more protection to the environment than RPP operating the existing RPP Norco Facility without unduly curtailing nonenvironmental benefits?

No, there are no mitigating measures that would offer more environmental protection without unduly curtailing non-environmental benefits than RPP operating the Incinerators at the existing location in Norco, St. Charles Parish, Louisiana.

The existing RPP Norco Facility is designed to minimize the exposure of the process to the environment. Specifically, process bulk storage tanks are located either in diked areas or areas designed so that potential spillage from the tanks route to the wastewater treatment system. All hazardous waste tanks are located on concrete pads surrounded by concrete containment walls. The process areas have chemical sewers to collect potential chemical leaks and small spills that could potentially occur.

Additionally, there are several safety systems in place to further reduce the exposure of the process to the environment. The facility has mechanical safety devices such as pressure safety valves on equipment and over speed trips on steam turbines. The facility contains instrumentation that is designed to have the highest level of reliability including dual independent sensing elements and entirely hard-wired shut down systems. In addition, there are numerous operational alarms that alert operators of potential out of range conditions.

In addition to using equipment that reduces potential exposure of the process to the environment, RPP implements several monitoring practices that minimize potential exposure. These monitoring practices include employing two dedicated, API certified pressure equipment inspectors that inspect and monitor pressure equipment, maintaining inspection and mitigation plans that instruct operators on how to handle potential instrumentation failure, and requiring specialized training for craftsmen that service and check instrumentation. Under OSHA's Process Safety Management regulation, RPP practices a process called management of process change that requires that every change made to a process applicable to this regulation receive proper technical and operational review prior to implementing that change. RPP applies this practice to processes at the facility as a method to ensure that the facility maintains high operational standards.

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RPP plans to maintain quality assurance controls for additional protection to the environment.

The facility adheres to strict environmental practices in order to maintain full compliance with the LDEQ and EPA requirements. Although spills and releases are not anticipated, accidental spills and releases are subject to federal and state reporting requirements. Under these requirements, there can be no permanent contamination of land or groundwater because of the strict response and remedial requirements that must be followed. RPP complies with these requirements and follows current laws and regulations designed to be protective of human health and the environment.

Additionally, wastes generated at the RPP Norco Facility are minimized. RPP implemented a program to reduce the volume and toxicity of all hazardous wastes that are generated by the facility's operation to the degree determined to be economically practicable. RPP follows detailed procedures prior to sending wastes off-site for disposal including creating waste data sheets for hazardous and non-hazardous waste streams at the facility. RPP's process wastewater and sanitary waste are treated off-site in Shell's Wastewater Treatment System (WWTS). The performance of the WWTS is monitored and results are submitted by Shell to the LDEQ. RPP does treat its liquid hazardous waste in the existing organic chloride incinerators, which are operated under Part 70 and RCRA permits. The facility will maintain administrative controls in the form of a waste analysis plan, procedures for off-site shipments of wastes, segregation of non-compatible materials and handling of containerized materials.

Title VI Stratospheric Ozone Questions
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1. *Does your facility have any air conditioners or refrigeration equipment that uses CFC's, HCFC's, or other depleting substances?*

Yes, the Resolution Performance Products (RPP) Norco Facility has air conditioners and refrigeration equipment that uses CFC's and HCFC's.

2. *Does the air conditioner or refrigeration equipment contain a refrigeration charge greater than 50 pounds?*

Yes, the air conditioner equipment does contain a refrigeration charge greater than 50 pounds.

3. *Do your facility personnel maintain, service, repair, or dispose of any motor vehicle air conditioners (MVAC's) or appliances ("appliance" and "MVAC" as defined at 40 CFR 82.152)?*

No, RPP facility personnel do not maintain, service, repair or dispose of any motor vehicle air conditioners or appliances. An outside contractor maintains, services, repairs, and disposes motor vehicle air conditioners and appliances.

4. *Cite and describe which Title VI requirements are applicable to your facility (i.e. 40 CFR Part 82, Subparts A through G.) in the Regulatory Applicability section of the application.*

See Table 2 in Appendix B.